

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
11 April 2002 (11.04.2002) **APR 01 2002** **PCT**

(10) International Publication Number
WO 02/030045 A3

- (51) International Patent Classification⁷: **H04L 29/06** (74) Agent: **MEHRA, Shailesh**; Network Robots Inc., Suite 200, 4695 Chabot Drive, Pleasanton, CA 94588 (US).
- (21) International Application Number: **PCT/US01/31007**
- (22) International Filing Date: **1 October 2001 (01.10.2001)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
09/679,321 **3 October 2000 (03.10.2000)** **US**
- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US **09/679,321 (CIP)**
Filed on **3 October 2000 (03.10.2000)**
- (71) Applicant (for all designated States except US): **NET-WORK ROBOTS INC.** [—/US]; Suite 200, 4695 Chabot Drive, Pleasanton, CA 94588 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **PAYNE, Jeffrey, S.** [US/US]; 6247 53rd Ave. NE, Seattle, WA 98115 (US). **VALIZADEH, Homayoun** [US/US]; 109 Laurelwood Drive, Danville, CA 94526 (US). **ISLAM, Junaid** [CA/US]; 2341 Cottle Avenue, San Jose, CA 95125 (US).
- (81) Designated States (national): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.**
- (84) Designated States (regional): **ARIPO** patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), **Eurasian** patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), **European** patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), **OAPI** patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report
- (88) Date of publication of the international search report:
13 March 2003
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: **PROGRAMMABLE NETWORK DEVICE**

(57) Abstract: A programmable network device is described. The programmable network device executes software modules resident on its hardware to support assorted applications and network management services. These modules may be dynamically loaded, unloaded, or modified without interrupting network traffic routed through the device. The loading and unloading of modules can be administered remotely, via a network backbone, service provider network, LAN, or other internetwork coupled to the device. Alternatively, administrators may alter the operating parameters of individual management modules via the network to effect performance gains or modify existing operating parameters.

WO 02/030045 A3